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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,946	06/11/2001	Chiharu Nishizawa	Q64789	4404

7590 03/13/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
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EXAMINER

RIBAR, TRAVIS B

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/876,946	Applicant(s) NISHIZAWA ET AL.	
Examiner Travis B Ribar	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The amendment filed December 13, 2002 overcomes the objection put forth in paragraphs 1-2 and 10-11 of the office action dated September 10, 2002.
2. The amendment filed December 13, 2002 overcomes the rejections put forth in paragraphs 4-9 of the office action dated September 10, 2002.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhalakia et al. ('459) in view of the teachings of Ichikawa et al.

Bhalakia et al. ('459) discloses a multilayer structure that is the same as the applicant's structure, having two polycarbonate films (column 10, line 32) sandwiching a multilayer functional film, therefore meeting the structural limitations of claims 1 and 4. Bhalakia et al. ('459) teaches that the multilayer film may include a photochromic layer (column 5, line 7) or a polarizing layer (column 5, line 11), but does not explicitly state that the multilayer film in the invention includes both. It would have been obvious to one skilled in the art at the time of invention, however, to make the multilayer functional film in Bhalakia et al. ('459) out of both a photochromic layer and a polarizing layer. The

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motivation for doing so would be to incorporate both properties into the multilayer laminate structure while staying within the teachings of the reference.

Bhalakia et al. ('459) also does not explicitly state the thickness of the layers to be the same as the applicant states in claims 1-3. The thickness of the polycarbonate layers may be inferred to be in the range of both claims 1 and 2 (column 23, line 57), and it would be an obvious variation on the invention in Bhalakia et al. ('459) to manipulate the thickness of the photochromic layer (see the examples) for various well known reasons, including ease of processing, increased mechanical strength, and even aesthetic value, and therefore meet the thickness requirement of claim 3.

Bhalakia et al. ('459) also discloses a polarizing layer with a dye and a treatment that is the same as that in claim 13 (column 13, lines 31-44).

Finally, the applicant claims a retardation value for at least one of the transparent resins in claim 1. The retardation value of any material is an inherent property of that material (see Ichikawa et al. column 3, lines 44-54). Since Bhalakia et al. ('459) teaches the same materials as the applicant claims (see above), it therefore also inherently possesses the retardation value the applicant claims in claim 1.

5. Claims 5-12, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhalakia et al. ('459) in view of Mizuguchi et al.

Bhalakia et al. ('459) is discussed above and discloses the general multilayer structure of the applicant's claims. However, Bhalakia et al. ('459) does not disclose the chemical composition of the photochromic layer. Mizuguchi et al. discloses this layer.

Mizuguchi et al. discloses a polyurethane (column 2, line 51) photochromic polymer made from the chemicals the applicant claims in claims 7, 9-11, 15, and 17 (column 2, lines 34 and 66-67). Here the examiner notes that claims 5-11 and 14-17 are product-by-process claims. In product-by-process claims, "once a product appearing to be substantially identical is found and a 35 U.S.C. 102 or 103 rejection made, the burden shifts to the applicant to show an unobvious difference." MPEP 2113. The applicant has not shown that the method by which the product is made causes the product to be patentably distinct from the product produced by the reference(s). This rejection under 35 U.S.C. 103 is therefore proper because the "patentability of a product does not depend on its method of production." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

The applicant has not shown that the lamination step in claim 5 would yield a product patentably distinct from any multilayer that would be taught through the combination of Bhalakia et al. ('459) and Mizuguchi et al., which teach multilayers that may be laminated together.

Claims 6-11, 15, and 17 all represent intermediate steps in the formation of the final polyurethane. Since the applicant has not shown that this particular method of making the polyurethane causes the product to be patentably distinct from the polyurethane made in Mizuguchi et al., and since the precursors used to make the polyurethane in the present application are the same as the precursors used to make the polyurethane in Mizuguchi et al., the rejection of this aspect of the claims using a product-by-process argument is proper. With regard to the prepolymer and curing

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agent molecular weights in claim 8, these properties disappear during the polymerization/curing of the polyurethane that is present in the final, claimed product and therefore also represent product-by-process limitations.

Claims 14 and 16 are product-by-process claims because even if Bhalakia et al. ('459) didn't include the vacuum molding of the final product (see the examples), the applicant has not shown that the process of vacuum molding causes a product to be patentably distinct from any other molded or extruded part.

Finally, Mizuguchi et al. also includes a hindered phenol in the composition taught therein (column 4, line 51), meeting that aspect of claim 12.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the photochromic composition in Mizuguchi et al. as the photochromic layer in the multilayer taught by Bhalakia et al. ('459). The motivation for doing so would be that such a suitable photochromic layer is known in the art. Therefore it would have been obvious to combine Mizuguchi et al. with Bhalakia et al. ('459) to obtain the invention as specified in claims 5-12 and 14-17.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bhalakia et al. ('459) in view of Sugio et al.

Bhalakia et al. ('459) is discussed above, but does not explicitly state that the polarizing layer contains a dye. Sugio et al. discloses a polarizing film that contains both the dye component of claim 13 and the treatment method of claim 13 (column 2, lines 23-36).

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to substitute the polarizing film in Sugio et al. for the polarizing film in Bhalakia et al. ('459). The motivation for doing so would be that the substitution of one known polarizing film for another would not be expected to destroy the invention in Bhalakia et al. ('459). Therefore it would have been obvious to combine Sugio et al. with Bhalakia et al. ('459) to obtain the invention as specified in claim 13.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis B Ribar whose telephone number is (703) 305-3140. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Travis B Ribar
Examiner
Art Unit 1711

TBR
March 5, 2003


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700